



# PHIRI

Population Health Information  
Research Infrastructure

# PHIRI WORKFLOW FOR FEDERATED RESEARCH

## CONCEPTION

See the PHIRI use cases data model:

The PHIRI federated research workflow have been piloted in four use cases, measuring the impact of COVID-19 on:



differential exposure of vulnerable population to healthcare (USE CASE A)



delayed care in breast cancer patients (USE CASE B)



changes in perinatal health indicators (USE CASE C)



effects on mental health services utilisation (USE CASE D)

**1** Research question  
Formalising the research question

**2** Common Data Model  
Iteratively building a Common Data Model specification with the contribution of all participants in each research question

## IMPLEMENTATION

See more about the prototype of the PHIRI federated research infrastructure:

[doi.org/10.5281/zenodo.5729310](https://doi.org/10.5281/zenodo.5729310)



**3** Synthetic dataset  
Generating a synthetic dataset following the specifications of the agreed common data model

**4** Data Quality Checks  
Iteratively developing and testing the scripts (code) implementing the Data Quality Analysis using the synthetic data set

**5** Analytical workflow  
Iteratively developing and testing the scripts (code) of the statistical analysis using the synthetic data set

**6** Docker deployment  
Secure processing App containing the whole analytical pipeline is deployed in the participant node



## EXECUTION

See more about the Execution:

[www.phiri.eu/wp6](http://www.phiri.eu/wp6)



See the PHIRI cases study report:



**7** Local analyses and meta-analyses  
Running the App participants will get local results shared for comparison

**8** Publication  
Analytical Pipeline, App and Results are published in Open Science repositories

**DO IT YOURSELF**

Discover the PHIRI demonstrator on the European Health Information Portal, and participate in one the PHIRI research use-case. You will be able to run your analyses locally using the PHIRI methodology and compare your results with those in the other countries.



[www.phiri.eu](http://www.phiri.eu)

